



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,965	01/21/2005	Jean-Michel Sauvage	0518-1081-1	2112

466 7590 12/28/2009  
YOUNG & THOMPSON  
209 Madison Street  
Suite 500  
Alexandria, VA 22314

EXAMINER
----------

JOSEPH, TONYA S

ART UNIT	PAPER NUMBER
----------	--------------

3628

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

12/28/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DocketingDept@young-thompson.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/521,965	<b>Applicant(s)</b> SAUVAGE ET AL.	
	<b>Examiner</b> TONYA JOSEPH	<b>Art Unit</b> 3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09/23/2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### **Status of Claims**

Claims 1-11 have been previously examined. Claim 1 has been amended. Claim 14 has been added. Claims 12-13 have been cancelled. Thus, claims 1-11 and 14 are presented for examination.

### ***Response to Arguments***

1. Applicant's arguments filed 09/23/2009 have been fully considered but they are not persuasive.
2. Applicant argues with respect to claims 1 and 14 that Hornick does not teach, "wherein the given transport service between said two locations is a single leg of a journey..." The Examiner disagrees. By Applicant's own admission, Hornick discusses that an itinerary can be a single leg, Applicant's remarks pg. 10. Further, nothing in the specification of Hornick suggests that the transport service only refers to aggregate legs, as asserted by Applicant. Specifically, Hornick teaches,

The flight network database 6 specifies a plurality of flight legs, a plurality of itineraries (including which flight legs are used therein), one or more fare classes for each itinerary, a known seat capacity for each flight leg, a known demand distribution for each itinerary/fare class combination, a known revenue yield for a seat reserved within each itinerary/fare class combination, and a booking limit for each itinerary/fare class combination. The seat inventory control system 5 processes the flight network database 6 to assign seats in a particular flight leg to one or more itinerary/fare class combinations in the flight network database 6. [Emphasis added]

Art Unit: 3628

As demonstrated above, Applicant has cited a portion of language from Hornick that does not **reasonably** allow the conclusion to be drawn that the transport service only refers to aggregate legs. Accordingly, Applicant's are not persuasive and the rejection is maintained.

Applicant further asserts that Talluri and Hornick are not easily combinable. The Examiner disagrees. The test for obviousness is not whether the features of a secondary reference are easily combinable into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Applicant further argues with respect to claim 3 that Talluri does not teach the recited claim language. The Examiner disagrees. First, all that is required by the claim is a to each class of service a boundary transfer value is assigned that **correspond**... The words following the term "correspond" are not definitively required by the claim. Correspond is similar in patentability to "related to" or "somewhat". The amount of weight given to the term is limited. Secondly, Talluri does teach a transfer value that corresponds to the maximum number of reservation request for a class of service that can be transferred. Specifically, Talluri teaches

One example of a nested capacity allocation scheme is known as Single-resource Nested Allocations. This approach was originally developed to allocate capacity of a single resource, for example a single flight leg, to one of n possible demand classes (fare-classes in airline industry).

That is, as more capacity is sold, more demand classes are "closed out" as booking limits are reached. Alternatively, when customers cancel, more capacity becomes available and some demand classes may "open up" as the available capacity exceeds their booking limits. In this way, the nested allocation structure adjusts to the evolving capacity conditions.

As shown above, the booking limits of Talluri opens and closes demand classes as capacity adjust. The reservations that are not able to be "booked" are "transferred" to the next available class of service.

Examiner note: Support has not been found in the cited portion of the original specification as filed. The newly added claim language is considered new matter.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-11 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has added the negative limitation, "wherein the given transport service between said two locations is a single leg of a journey separate from an aggregate of multiple legs of the journey". Support for this amendment can not be found in the cited portion of the specification. If Applicant disagrees with the Examiner's conclusion, Applicant is requested to show in the

Art Unit: 3628

response, explicit support in the original specification as filed for the claimed features.

Appropriate Correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2, 10 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Hornick U.S. Patent No. 5,255,184.

7. As per Claims 1 and 14, Hornick teaches at least one other class of service (k') of another transport service (Fj) between said two locations is selected (see Col. 5 lines 2-11); the number of locally available seats aVFjk(Y) is determined for the class of service (k') of the another transport service (Fj) at the predefined level of expected revenue (Y) (see Col. 6 lines 48-56 and Col. 5 lines 46-51); for the given class of service (k) on the given transport service (fi), an overall number of available seats XFAVFjk(Y) is determined at the predefined level of expected revenue (Y) as a function numbers of locally available seats (aVFik(Y), determined for the given transportation service and the at least another transport service between said two locations wherein the given transport service between said two locations is a single leg of a journey separate from an aggregate of multiple legs of the journey (see Col. 6 lines 48-56).

Art Unit: 3628

8. As per Claim 2, Hornick teaches the method of claim 1 as described above.

Hornick further teaches the overall number of available seats  $XFAVFik(Y)$  is determined by adding up the numbers of seats available locally ( $avid(Y)$ ,  $avfjk(Y)$ ) of the two classes of service ( $k$ ,  $k'$ ) (see Col. 6 lines 48-56 and Col. 7 lines 1-45) determined for the given transportation service and the at least another transport service between said two locations (see Col. 6 lines 48-56).

9. As per Claim 10, Hornick teaches the method of claim 1 as described above.

Hornick further teaches the steps in the process are carried out each time there is an availability request from a customer (see Col. 6 lines 1-20)

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 3-9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hornick in view of Talluri U.S. Patent No. 6,263,315 B1.

12. As per Claim 3, Hornick teaches the method of claim 1 as described above.

Hornick does not explicitly teach the method taught by Talluri

- to each class of service a boundary transfer value ( $SP_{max}$ ) is assigned that corresponds to the maximum number of reservation requests for the class of service that can be transferred to seats on other classes of service (see Col. 2 lines 10-14);

Art Unit: 3628

- for each class of service, a number of transferable reservation requests ( $SP(Y)$ ) is determined that is equal to:

- either zero, if the number of seats available locally for said class of service ( $k$ ) is positive (see Col. 2 lines 10-14).

for each class of service, a number of reservation requests that can be accepted ( $SA(Y)$ ) is determined that is equal to:

- or the number of seats available locally for said class of service  $avk(Y)$  if this number is positive (see Col. 1 lines 65-67 and Col. 2 lines 1-27). It would have been prima facie obvious to one of ordinary skill in the art at the time of invention to modify the method of Hornick to include the teachings of Talluri to incorporate booking limitations, as taught by Talluri Col. lines 10-15).

13. As per Claim 4, Hornick in view of teaches the method of claim 1 as described above. Hornick does not explicitly teach the limitation taught by Talluri to each class of service a boundary acceptance value ( $SA_{max}$ ) is assigned that corresponds to the maximum number of seats in said class of service that can be used to transfer reservation requests on other classes of service; - an upper limit that is equal to the boundary acceptance value ( $SA_{max}$ ) is assigned to the number of reservation requests that can be accepted (see Col. 2 lines 1-22 and Col. 3 lines 8-16). It would have been prima facie obvious to one of ordinary skill in the art at the time of invention to modify the method of Hornick to include the teachings of Talluri to allow a maximum available capacity for a demand class, as taught in Talluri Col. 3 lines 14-16.



Art Unit: 3628

14. As per Claim 5, Hornick teaches the method of claim 3 as described above.

Hornick further teaches a single other class of service ( $k'$ ) that belongs to another transport service ( $F_j$ ) is selected; - the total acceptance capacity ( $TSA_k$ ) from the other class of service ( $k'$ ) for the given class of service ( $k$ ) is determined by selecting the minimum value from the boundary transfer value ( $SPF_{jkmax}$ ) of the given class of service ( $k$ ) and the number of reservation requests that can be accepted ( $SAF_{jk'(Y)}$ ) on said other class of service ( $k'$ ) (see Col. 24 lines 41-60), the total transfer capacity ( $TSP_k$ ) on said other class of service ( $k'$ ) is determined on the given class of service ( $k$ ) by selecting the minimum value from the number of transferable reservation requests for the other class of service ( $k'$ ) ( $SPF_{jk'(Y)}$ ) (see Col. 24 lines 41-60) and the number of reservation requests that can be accepted on the given class of service ( $k$ ) ( $SAF_k(Y)$ ), the overall number of available seats  $XFAV_{Fik}(Y)$  is calculated by • adding the number of seats available locally  $aV_{Fik}(Y)$  and the total acceptance capacity  $TSA_{Fik}(Y)$  (see Col. 25 lines 11-22). The limitation, "and subtracting therefrom the total transfer capacity  $TSP_{Fik}(Y)$ " is merely a statement of intended use and as such is afforded little patentable weight.

15. As per Claim 6, Hornick in view of Talluri teaches the method of claim 4 as described above. Hornick further teaches for each class of service ( $k$ ) of a given transport service ( $F_i$ ), the classes of service ( $k'$ ) of the transport service are selected that have a lower index to which the reservation requests on the class of service of the given transport service ( $F_i$ ) can be transferred (see Col. 12 lines 36-49). Hornick does not explicitly teach the limitation taught by Talluri, an index  $i$  is assigned to each

Art Unit: 3628

transport service, whereby the value of said index increases with the time of departure, (see Col. 6 lines 24-30, Examiner is interpreting the threshold value to have the equivalent effect of an index based on a departure time). It would be prima facie obvious to one of ordinary skill in the art at the time of invention to modify the method of Hornick to include the teachings of Talluri to assign a weight to a parameter lines 55-59. The limitation, "a transport service chain (Fi) is formed that has successive departure times and where each departure time has a selected class of service (k, k') is merely a statement of intended result and as such is afforded little patentable weight.

16. As per Claim 7, Hornick in view of Talluri teaches the method of claim 6 as described above. Hornick further teaches the total acceptance capacity  $TSAF_{ik}(Y)$  for the class of service (k) is determined by selecting the minimum value from the boundary transfer value ( $SPF_{ikmax}$ ) of the given class of service (k) and the sum of the numbers of reservation requests that can be accepted ( $SAF_{jk}(Y)$ ) for the classes of service (k') of transport services (Fj) to which the given class of service (k) can be transferred (see Col. 24 lines 41-60).

17. As per Claim 8, Hornick in view of Talluri teaches the method of claim 7 as described above. Hornick further teaches the total transfer capacity  $TSPF_{ik}$  from all of the other classes of service to a class of service (k) is determined from the update of the number of reservation requests that can be accepted to said class of service (k) (see Col. 24 lines 41-60 and Col. 5 lines 51-65).

18. As per Claim 9, Hornick in view of Talluri teaches the method of claim 8 as described above. Hornick further teaches the overall number of available seats

Art Unit: 3628

XFAVFik(Y) is calculated by adding the number of seats available locally aVFik(Y) and the total acceptance capacity TSAFik(Y) (see Col. 25 lines 11-22). The limitation, “and subtracting therefrom the total transfer capacity TSPFik(Y)” is merely a statement of intended use and as such is afforded little patentable weight.

19. As per Claim 11, Hornick in view of Talluri teaches the method of claim 6 as described above. Hornick further teaches the total transfer capacity TSPFik from all of the other classes of service to a class of service (k) is determine from the update of the number of reservation requests that can be accepted to said class of service (k) (see Col. 24 lines 41-60 and Col. 5 lines 51-65).

### ***Conclusion***

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TONYA JOSEPH whose telephone number is (571)270-

Art Unit: 3628

1361. The examiner can normally be reached on Mon-Fri, 7:30 am-5:00pm First Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571 272 0847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOHN W HAYES/

Supervisory Patent Examiner, Art Unit 3628